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| 10/522,748 | 01/28/2005 | Nobuhiko Funato | 1152-0316PUS1 | 9305 |
| 2292 7590 04/06/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | | |
| EXAMINER | | | | |
| ELPENORD, CANDAL | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2416 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/522,748

Applicant(s)

FUNATO, NOBUHIKO

Examiner

CANDAL ELPENORD

Art Unit

2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on January 29, 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 29 and 45 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-22, 25-28 and 30-44, 46-49 is/are allowed.
- 6) ☒ Claim(s) 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 21, 2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 23-24, 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldhor et al (US 6,625,656 B2) in view of Sen et al (US 6,691,312 B1) and further view of Laroia et al (US 2004/0258084 A1).

Regarding claim 23, Goldhor '656 discloses a data communication apparatus (fig. 2, Continuous Playback Apparatus 1000, recited in col. 2, lines 66 – col. 3, lines 15) for receiving data (fig. 2, User System 300, recited in col. 3, lines 4-12) transmitted intermittently ("method and apparatus for providing continuous playback of media and audio and audio-visual works received", recited in col. 2, lines 14-20, "intermittently arriving data", recited in col. 22, lines 30-37) from a transmitting side (fig. 2, Streaming Data Source 100, recited in col. 3, lines 1-9), storing the data ("buffered input data at the Capture Buffer 400", recited in col. 3, lines 35-43) into a buffer memory (fig. 2, Capture Buffer 400, recited in col. 3, lines 8-16) and playing the data stored ("playback associated with buffer", recited in col. 6, lines 4-19, fig. 2, Playback System 500, recited in col. 3, lines 35-43) in the buffer memory (fig. 2, Capture Buffer 400, recited in col. 3, lines 8-16) in real time in parallel ("data transmission which corresponds to real-time playback", recited in col. 22, lines 9-14) with the data storing ("playback associated with buffer", recited in col. 6, lines 4-19, comprising: a multimedia data communication controller (fig. 2, fig. 7, Time Scale Modification 800 and Time Scale Modification Rate Determiner 700) for setting up a intermittent transmission schedule (fig. 7, Time Scale Comparator, "computes a control parameter", recited in col. 12, lines 15-25, System Clock 5300, recited in col. 11, lines 43-56) which will not cause either overflow or underflow ("time scale modification desired to avoid data overflow or data overflow",

recited in col. 12, lines 44-49) during a real-time playback of the data ("data transmission which corresponds to real-time playback", recited in col. 22, lines 9-14), based on a data characteristic of the data ("stream of data representing portions of audio, audio-visual work", recited in col. 19, lines 7-15).

Regarding claim 24, Goldhor '656 discloses the data communication apparatus (fig. 2, Continuous Playback Apparatus 1000, recited ion col. 2, lines 66 – col. 3, lines 15), wherein the intermittent transmission schedule includes a time interval for alternation of intermittent communication ("time scale modification to slow down the playback rate of the audio visual work in to match a data drain rate of the streaming data rate", recited in col. 3, lines 35-48), or the amount of data transmission for alternation of intermittent communication ("streaming data rate", recited in col. 3, lines 35-48).

Regarding claim 48, Goldhor '656 discloses the data communication apparatus (fig. 2, Continuous Playback Apparatus 1000, recited ion col. 2, lines 66 – col. 3, lines 15), wherein the transmission schedule includes the amount to be changed of data transmission in each intermittent communication period ("time scale modification to slow down the playback rate of the audio visual work in to match a data drain rate of the streaming data rate", recited in col. 3, lines 35-48).

Goldhor '656 discloses all the claimed limitation with the exception of being silent with regard to the following features:

Regarding claim 23, and a communicator for transmitting the intermittent transmission schedule to the transmitting side in order to receive data transmitted intermittently based on the intermittent transmission schedule.

However, Sen '312 from the same field of endeavor discloses the above claimed features: a communicator (fig. 1, Multicasting server/gateway server 102, col. 3, lines 49-59) for transmitting the intermittent transmission schedule to the transmitting side in order to receive data transmitted intermittently based on the intermittent transmission schedule (noted: distributing of multicast video streaming to multiple clients nodes based on the computed schedules, col. 3, lines 25-27, 38-47).

In view of the above, having the method and apparatus for providing continuous playback or distribution of multimedia information of Goldhor '656, and the method for multicasting video to multiple client nodes of Sen '312, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Goldhor '656 by using features as taught by Sen '312 in order to provide distribution of video based on the rate constraints and transmission schedule as suggested in col. 3, lines 37-48, col. 1, lines 55 to col. 2, lines 12.

Goldhor '656, and Sen '312 disclose all the claimed limitations with the exception of being silent with respect to claimed features: an electric power supply stop step for stopping electric power supply to communicator during a non-transmission time based on a current intermittent transmission schedule.

However, Laroia '084 from the same field of endeavor discloses the above claimed features: an electric power supply stop step for stopping electric power supply

to communicator during a non-transmission time based on a current intermittent transmission schedule (noted: base station and wireless controller with means for turning off (i.e. sleep mode when not in the standby mode of operation) the wireless terminal circuitry after receiving paging signals in associated time slots, paragraphs 0021, lines 1-10).

In view of the above, having the method and apparatus for providing continuous playback or distribution of multimedia information of Goldhor '656, the method for multicasting video to multiple client nodes of Sen '312, and the method and apparatus for transmitting paging messages using reduced power consumption of Laroia '084, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Goldhor '656 with Sen '312 by using features as taught by Laroia '084 in order to provide power consumption which in preserve the life span of the terminal battery as suggested in paragraph 0021.

Response to Arguments

The Applicant arguments concerning the U.S.C 103 (a) rejection above are not persuasive. In particular, the Applicant alleged that the above combination fail to teach or suggest "the data communication apparatus for receiving data transmitted intermittently from a transmitting side, including among other things " a communicator for transmitting the intermittent transmission schedule to the transmitting side in order received data transmitted intermittently based on the intermittent transmission schedule; and electric power supply controller for stopping electric power supply to the

communicator during a non-transmission time based on the intermittent transmission schedule”.

In response, the Examiner respectfully disagrees because the three-way combination does in fact teach the Applicant claimed invention as broadly interpreted. Given the well-established of the combined references, it would have been obvious to one skilled in the art at the time the invention was made to arrive at the claimed invention in order to transmit multimedia based on the transmission schedule which in turn provides bandwidth efficiency and conservation of the battery power.

Allowable Subject Matter

5. **Claims 1-22, 25-28, 30-44, 46-49** are allowed.

Regarding claim 1, a proposal step for transmitting the first intermittent transmission schedule to a communication partner side to make a proposal of the first intermittent transmission schedule in order to receive an approval or disapproval of the proposed first intermittent transmission schedule; and an electric power supply stop step for stopping electric power supply to an inter-node communicator during a non-transmission time based on a current intermittent transmission schedule of the data being transmitted intermittently.

Regarding claim 25, a schedule judging portion for transmitting via the inter-node communicator a transmission schedule of the data to the communication partner appliance, according to which the buffer memory will not cause either overflow or underflow; and an electric power supply controller for stopping electric power supply to the communicator during a non-transmission time based on the transmission schedule,

wherein the transmission schedule is set up based on the quality management information.

Regarding claim 26, a schedule judging portion for transmitting via the inter-node communicator the transmission schedule of the data to the communication partner appliance, according to which a buffer memory of the communication partner appliance will not cause either overflow or underflow; and an electric power supply controller for stopping electric power supply to the communicator during a non-transmission time based on the transmission schedule, wherein the transmission of the data is performed based on the transmission schedule and the transmission schedule is set up based on the quality management information.

Goldor '656 discloses a conventional buffer playback apparatus (fig. 2, Continuous Playback Apparatus 1000, recited in col. 2, lines 66 – col. 3, lines 15, "method and apparatus for providing continuous playback of media and audio and audio-visual works received", recited in col. 2, lines 14-20).

Asar '557 from the same field of endeavor discloses conventional method and system for measuring the performance and then computes the transmission schedule based on the performance measurements, col. 2, lines 9-16, col. 7, lines 41-48, col. 3, lines 7-19, col. 5, lines 17-27.

The prior arts of record either singularly or in combination fail to anticipate or render the distinct claimed features obvious.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hejna et al (US 2003/0041158 A1), Hagai et al (US 7,051,110 B2), Muller et al (US 6,438,375 B1), Nakamura et al (US 6,721,818 B1) and Kageyama et al (US 2002/0046311 A1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDAL ELPENORD whose telephone number is (571)270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Candal Elpenord/

Examiner, Art Unit 2416

/Kwang B. Yao/

Supervisory Patent Examiner, Art Unit 2416